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Year: 2016

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DOI: <https://doi.org/10.1093/geronb/gbu098>

Posted at the Zurich Open Repository and Archive, University of Zurich

ZORA URL: <https://doi.org/10.5167/uzh-107313>

Journal Article

Published Version

Originally published at:

Weiss, David; Sczesny, Sabine; Freund, Alexandra M (2016). Wanting to get more or protecting one's assets: age-differential effects of gain versus loss perceptions on the willingness to engage in collective action. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, 71(2):254-264.

DOI: <https://doi.org/10.1093/geronb/gbu098>

# Wanting to Get More or Protecting One's Assets: Age-Differential Effects of Gain Versus Loss Perceptions on the Willingness to Engage in Collective Action

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**Objectives.** The present research examined motivational differences across adulthood that might contribute to age-related differences in the willingness to engage in collective action. Two experiments addressed the role of gain and loss orientation for age-related differences in the willingness to engage in collective action across adulthood.

**Method.** In Experiment 1,  $N = 169$  adults (20–85 years) were confronted with a hypothetical scenario that involved either an impending increase or decrease of health insurance costs for their respective age group. In Experiment 2,  $N = 231$  adults (18–83 years) were asked to list an advantage or disadvantage they perceived in being a member of their age group. Subsequently, participants indicated their willingness to engage in collective action on behalf of their age group.

**Results.** Both experiments suggest that, with increasing age, people are more willing to engage in collective action when they are confronted with the prospect of loss or a disadvantage.

**Discussion.** The findings highlight the role of motivational processes for involvement in collective action across adulthood. With increasing age, (anticipated) loss or perceived disadvantages become more important for the willingness to participate in collective action.

**Key Words:** Adulthood—Collective action—Gains—Losses—Motivational orientation.

CURRENT and recent world events such as mass demonstrations in the Ukraine, in Thailand, or in the context of the Arab Spring demonstrate the power of collective action. There are certainly many and varied reasons why people participate in such collective protests, among them a discontent with the current situation and the wish to improve it. Media showed a flood of images of primarily young adults participating in the collective action in the Arab Spring or demonstrations in Kiev or Bangkok. What about the middle-aged and older adults—are they less dissatisfied with the current situation or are there systematic age-related differences that “get people going?” The current paper explores potential motivational differences in attaining gains or preventing losses across adulthood that might contribute to age-related differences in the willingness to engage in collective action.

A commonly held assumption about old age is that people seek more passive roles and become less likely to actively participate in political life as they grow older. Thus, old age is often associated with reduced political engagement (Glenn & Grimes, 1968). The purpose of the current research is to provide a more differentiated picture of age-related differences in the willingness to participate in collective action. We assume that age-related differences in the motivation to

engage in collective action are partly driven by more general motivational changes across adulthood. Generally, younger adults are more likely to actively pursue opportunities for gains and older adults to prevent losses (Ebner, Freund, & Baltes, 2006; Freund, 2006; Freund & Ebner, 2005; Mustafic & Freund, 2012). Applied to the willingness to engage in collective action, younger adults, due to their primary orientation toward growth, should be more motivated to engage in collective action in order to attain gains than to avoid losses. By contrast, because the orientation toward maintenance and prevention of loss increases with advancing age, middle-aged and older adults should be more strongly motivated to engage in collective action to prevent loss. We predict that that young, middle-aged, and older adults' willingness to engage in collective protest depends on whether the situation is framed as attaining gains or counteracting losses. We investigated this assumption in two experiments, which test whether the anticipation of gains or losses differentially influences young, middle-aged, and older adults' willingness to join collective protest. As advanced age is associated with a higher motivation to avoid losses than to achieve gains, we hypothesize that the prospect of loss (relative to the prospect of gains) should motivate especially older adults to engage in collective action.

## WHY DO INDIVIDUALS CHOOSE TO PARTICIPATE IN COLLECTIVE PROTEST?

Collective action is defined as the willingness to act on behalf of the group in order to change the conditions of the group as a whole (Tajfel, 1981; Wright, Taylor, & Moghaddam, 1990). Research on collective action differentiates between normative and nondisruptive as well as more non-normative and disruptive forms of collective protest (Cameron & Nickerson, 2009; Jost et al., 2012; Tausch, et al. 2011; Wright et al., 1990). Non-normative forms of collective protest include actions such as strikes or boycotts that disrupt the social order (see Jost et al., 2012). Normative and nondisruptive forms of collective protest entail signing a petition or participating in a political meeting that are compatible with the prevailing social norms. We follow this distinction in the present research.

There are various reasons to engage in collective action. For instance, people might be motivated to engage in collective action in order to maintain or change the standing of their group in the social structure (Tajfel, 1981). Indeed, research shows that people engage in collective action and protest when they perceive negative changes (i.e., relative deprivation) or positive changes (i.e., relative gratification; Grofman & Muller, 1973). Gurin, Miller, and Gurin (1980) argue that the awareness of blocked opportunities leads group members to attempt changing the situation. Relative deprivation refers to a perceived loss of the own group that arises from intergroup comparisons (Walker & Pettigrew, 1984). As a consequence, the perception of being disadvantaged as a group motivates people to engage in collective action and to protest (Guimond & Dubé-Simard, 1983; Pettigrew, 2002; Simon & Klandermans, 2001). Interestingly, when people feel better off than other groups and anticipate further improvement, they are also more likely to engage in collective action and protest (Grofman & Muller, 1973). The finding that people engage in collective action and protest when they perceive either negative changes (i.e., relative deprivation) or positive changes (i.e., relative gratification) has been termed the V-curve hypothesis (Grofman & Muller, 1973).

Research on relative deprivation demonstrates that people participate in collective action and protest when they feel deprived from opportunities and resources (Ellemers, 2001; Grant & Brown, 1995; Guimond & Dubé-Simard, 1983; Van Zomeren, Postmes, & Spears, 2008). Concerning relative gratification, Ellemers, Scheepers, and Popa (2010) found in a sample of university students that emphasizing benefits for the ingroup of an affirmative action program increased students' willingness to support this program. Accordingly, two basic reasons why people engage in collective action and protest can be identified: People may take action to either (a) counteract losses and avoid a negative future situation, or (b) achieve gains and approach a positive situation.

## CHANGES IN GOAL ORIENTATION ACROSS ADULTHOOD

Across adulthood, the ratio of gains to losses changes in a way that gains decrease and losses become more predominant (Baltes, 1987; Staudinger, Marsiske, & Baltes, 1993). A body of research demonstrates a motivational shift from a predominant orientation toward gains in young adult toward a stronger orientation toward counteracting losses (Depping & Freund, 2013; Ebner et al., 2006; Freund, 2006; Heckhausen, 1999; Lockwood, Chasteen, & Wong, 2005; Mustafic & Freund, 2012). Specifically, with advancing age, adults become increasingly motivated to maintain functioning and prevent losses. Thus, motivation shifts from a primary orientation toward growth in young adulthood to maintenance and prevention of loss in later adulthood (Freund & Ebner, 2005). For example, research has shown that people expect an increase in developmental losses and a decrease in developmental gains in personal characteristics and different domains of functioning across adulthood (Heckhausen, 1999; Mustafic & Freund, 2012). Moreover, research by Lockwood and colleagues (2005) shows that older adults focus more on preventing negative health outcomes than younger adults. In addition, Ebner and colleagues (2006) analyzed personal goals across adulthood, and found that younger adults rated their goals primarily as growth orientated. In contrast, middle-aged and older adults rated their goals more strongly as reflecting an orientation toward maintenance and loss prevention compared with younger adults. Further confirming the notion of a motivational shift from a primary growth orientation in young adulthood to a stronger motivation to prevent losses, Freund (2006) showed in a series of experiments that younger adults persisted longer when a simple psychomotor task was framed as an opportunity to enhance performance (i.e., growth orientation), whereas older adults persisted longer when the same task was framed as an opportunity to counteract losses.

Taken together, this line of research confirms motivational preferences for growth or gains in young adulthood. By contrast, it also shows the anticipation and experience of resource loss with increasing age, motivates older adults to preserve their acquired resources. Therefore, younger adults might take action when they perceive opportunities for improvement because they are primarily motivated to attain gains. Across adulthood and particularly in old age, when maintenance and the avoidance of loss becomes more important, adults might be more motivated to engage in collective action when resources are threatened. Hence, we expect that, different to younger adults, older adults are more motivated to engage in collective action in order to counteract anticipated or actual losses than to gain resources.

## THE ROLE OF AGE-IDENTITY CENTRALITY

Another factor that is likely to influence whether people are willing to engage in collective action on behalf of their group is the strength of their identification with

the respective group. In general, the centrality of group membership appears to be a strong predictor of collective action and protest (Kelly, 1993; Simon, 2004; Simon & Klandermans, 2001; Simon et al., 1998). Luhtanen and Crocker (1992) defined the self-centrality of an identity as “importance of one’s social group memberships to one’s self-concept” (p. 304). Spears, Doosje, and Ellemers (1997) found that, when group identity was threatened, highly identified group members showed solidarity for their group, whereas group members with a low group identification were more likely to distance themselves from their group. Thus, people who perceive their ingroup as an important part of their self-concept should be more motivated to participate in collective action for the ingroup than people who do not consider their group membership as important (Asmore, Deaux, & McLaughlin-Volpe, 2004; Brewer, 2001; Tajfel, 1978). Thus, we expect that age-group centrality moderates the age-differential effects of impending gains or losses on people’s willingness to participate in collective protest.

## THE PRESENT RESEARCH

In two experiments adults were assigned to the age group of young (18–34 years), middle-aged (35–64 years), and older adults (65 years and older) and were confronted with gain/loss (Study 1) or advantage/disadvantage (Study 2) for their respective age group. Subsequently, participants reported their willingness to engage in collective action. We tested the following hypotheses in the two experiments:

1. Middle-aged and older people report to be more willing to engage in collective action when they are confronted with losses than with gains (Study 1: increase or decrease in health insurance costs; Study 2: thinking about group-related (dis)advantages).
2. Younger adults are more likely to be motivated to participate in collective action when confronted with gains than with losses as compared with middle-aged and older adults (Study 1 and 2).
3. The extent to which people perceive their age-group membership to be central to their self-concept affects their willingness to participate in collective action when they think about losses (Study 2).

## STUDY 1

Study 1 tested the hypothesis that with increasing age people are more likely to be willing to engage in collective action when confronted with the prospect of loss. More specifically, in Study 1 adults learned about a planned increase or a drop in the health insurance costs for their age group. Subsequently, we asked participants whether they would be willing to engage in collective action and protest for or against the planned changes concerning their insurance on behalf of their age group.

## METHOD

### Participants and Design

Study 1 ( $N = 169$ ; 20–85 years,  $M = 49.4$ ,  $SD = 19.8$ , 71% female) consisted of a 2 (condition: gain vs. loss) by 3 (age group: young, middle-aged, older adults) between-participant design with the willingness to engage in collective action as dependent variable. Participants were randomly assigned to one of the two gain/loss conditions.

Overall,  $n = 61$  young adults aged between 20 and 34 years ( $M = 26.59$ ,  $SD = 3.86$ ; 84% female),  $n = 51$  middle-aged adults between 35 and 64 years ( $M = 51.78$ ,  $SD = 8.41$ ; 77% female), and  $n = 57$  older adults between 65 and 85 years of age ( $M = 71.54$ ,  $SD = 4.59$ ; 53% female) took part in the study. Younger adults were mostly students (61%) or working (33%). Concerning the level of education, 1% reported that they had completed primary education, 33% professional training, 18% high school, 9% university of applied science, and 35% university. Fifty-one percent of the young adults reported to be single and 44% reported to have a partner. The majority of middle-aged adults were working (77%); 45% were married, 12% were single, 18% had a partner, 22% were divorced, and 4% were widowed. Ninety-one percent of older adults were retired and 54% were married, 5% had a partner, 7% were single, 5% were widowed, and 28% were divorced.

### Procedure

Participants were recruited through the participant pool of the Life-Management Lab at the University of Zurich and different postings on websites in Switzerland. As an incentive, participants had the chance to win five gift vouchers worth 25 CHF (about 25 US\$) in a lottery. First, participants gave informed consent. Second, young, middle-aged, and older adults were randomly assigned to one of the two experimental conditions including a hypothetical scenario that either involved a report of an impending (a) increase or (b) decrease of health insurance costs for their age group. More specifically, participants were asked to read a short hypothetical newspaper article (173 words) concerning planned changes in insurance costs in Switzerland. We constructed these articles for the purpose of this study. The article in the loss condition discussed the increase of insurance costs. This included the information that young, middle-aged, or older adults would have to pay additional 100 CHF (about 100 US\$) of health insurance costs each month. In the gain condition, participants read a hypothetical newspaper article of similar length (172 words) concerning the planned decrease of insurance costs (100 CHF less per month) for young, middle-aged, or older adults. Both hypothetical articles are provided in [Supplementary Appendix A](#). After having read the article, participants were asked to respond to a manipulation check and measures assessing willingness to engage in collective action. At the end of the experiment, participants were thanked and fully debriefed.



### Measures

**Manipulation check.**—Participants were asked what would happen according to the hypothetical newspaper article (i.e., “What is the proposed change of insurance costs?”). Response alternatives were—1 (increase of costs by 100 CHF), 0 (no difference), and 1 (decrease of costs by 100 CHF).

**Willingness to engage in collective action.**—The willingness to engage in collective action was assessed using seven items measuring the motivation to take action in response to the proposed changes in the health system. Specifically, we asked participants whether they would engage (yes = 1; no = 0) in each of the following activities: Participate in a (a) demonstration, (b) boycott, (c) strike, (d) action group, (e) telephone campaign, (f) sign a petition, and (g) organize an information stand. A principal components analysis using orthogonal rotation (varimax) yielded two components with Eigenvalues > 1, accounting for 49.1% of the variance. Nondisruptive actions (i.e., action group, telephone campaign, sign a petition, and organize an information stand) loaded on the first component (factor loadings > 0.53) and moderate disruptive actions (i.e., demonstration, boycott, and strike) loaded on the second component (factor loadings > 0.61). We computed a sum score across all actions (Kuder–Richardson coefficient [K-R 20] = 0.57), a score for nondisruptive (K-R 20 = 0.58) and one for disruptive collective action (K-R 20 = 0.52).

**Covariates.**—In order to control for individual differences in the personal consequences of having less money at their disposal, we asked participants how difficult it would be for them if they had 100 CHF less available to them per month (i.e., “How easy or difficult it would it be for you financially if you had 100 CHF less money to spend per month?”; –3 [very easy], –3 [very difficult]). Finally, participants responded to questions assessing their demographic characteristics.

### RESULTS

The manipulation check confirmed that participants correctly understood the hypothetical newspaper article regarding the outlined financial gain or loss. The majority of participants in loss condition (90%) reported that they would have to pay higher insurance costs in future, whereas the majority of participants in the gain condition (91%)

endorsed the statement that they would have to pay less for their insurance in the future,  $\chi^2(2, 169) = 96.95, p < .001$ .

A  $2 \times 3$  analysis of covariance (ANCOVA) yielded a significant interaction effect of condition (gain vs. loss) and age group on willingness to participate in collective action,  $F(2, 168) = 3.32, p = .04, \eta_p^2 = 0.04$ . This effect was significant above and beyond the effects of participants' gender, education, and the subjective difficulty to have less money available to them per month. Planned pairwise comparisons for the three age groups showed no mean differences by experimental condition for young adults' willingness to engage in collective action. In contrast, middle-aged and older adults were more willing to engage in collective protest when losses were activated than when gains were activated. Moreover, this effect appeared for both, disruptive and nondisruptive forms of collective protest (see Table 1 for means, standard deviations, and sizes of the effects).

### DISCUSSION

Confirming Hypothesis 1, the results of Study 1 demonstrated age-related differences in the willingness to engage in collective action as a response to the prospect of financial gain or loss. Specifically, with increasing age people were more willing to engage in collective action in response to loss. In fact, middle-aged and older adults reported a higher willingness to engage in collective action as a response to a prospect of loss and reduced willingness as a response to a prospect of gain. Younger adults did not show this difference; they were more willing to engage in collective action when thinking about a prospective gain compared with middle-aged and older adults. With this pattern of results, Hypothesis 2 was partly supported. Young adults were motivated to engage in collective action both when confronted with potential gains or losses conditions. In fact, young adults in the gain condition displayed a higher willingness to engage in collective action than middle-aged and older adults in this condition. However, they were more gain-driven than middle-aged and older adults. Thus, different to middle-aged and older adults, prospective gains and losses appear to be important ingredients of younger adults' willingness to act on behalf of their age group. Confirming our central hypothesis, middle-aged and older adults showed a higher willingness to engage in collective

Table 1. Means, Standard Deviations, and Effect Sizes for Young, Middle-Aged, and Older Adults' (Non) Disruptive Forms of Collective Action for the Respective Condition (Gain vs. Loss) in Study 1

	Gain			Loss			Effect size <i>d</i>		
	<i>M</i> ( <i>SD</i> )	<i>M</i> <sub>ND</sub> ( <i>SD</i> )	<i>M</i> <sub>D</sub> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> <sub>ND</sub> ( <i>SD</i> )	<i>M</i> <sub>D</sub> ( <i>SD</i> )	<i>d</i>	<i>d</i> <sub>ND</sub>	<i>d</i> <sub>D</sub>
Young	2.59 (1.52)	1.79 (1.21)	0.79 (1.08)	2.44 (1.13)	1.91 (0.82)	0.53 (0.67)	0.01	0.12	0.30
Middle-Aged	1.25 (1.22)	1.13 (1.19)	0.13 (0.45)	2.70 (1.38)	2.00 (1.18)	0.70 (0.82)	1.11***	0.73*	0.86**
Older	1.71 (1.33)	1.54 (1.17)	0.18 (0.48)	2.79 (1.86)	2.31 (1.34)	0.48 (0.79)	0.67*	0.61*	0.50*

Note. D = disruptive; ND = nondisruptive.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

action as a response to potential losses and a reduced willingness as a response to potential gains.

Although we included the personal difficulty of having less money per month at their disposal as a covariate, we cannot rule out that, as a whole, the topic of health insurance costs is more important to older adults and that this is why they were particularly loss-sensitive in the current study. Therefore, we conducted a second experiment including different and more personalized age-specific scenarios of gain and loss experiences capturing people's subjective perceived dis(advantage). Indeed, research suggests that people are primarily motivated by their subjective sense rather than an objective state of disadvantage (Van Zomeren et al., 2008). Thus, we asked participants to list an advantage or disadvantage they perceive in being a member of their age group. Moreover, one might argue that thinking about a financial loss might affect the subjective well-being of adults of different ages differentially. For instance, older adults might be more strongly affected by such a loss than younger adults and, consequently feel worse when reading about a potential rise in health insurance costs that motivate them to participate in collective action. Thus, Study 2 also included a measure of subjective well-being.

## STUDY 2

Study 2 sought to replicate the findings of Study 1 using different scenarios. By focusing on people's subjective sense of (dis)advantage they perceive in being a member of their age group we investigated young, middle-aged, and older adults willingness to engage in collective action. In addition, we examined the moderating role of the centrality of age identity. We expected that individuals who consider their age group as important to themselves are more willing to engage in collective protest when they are confronted with a disadvantage related to their age group.

## METHOD

### *Participants and Design*

Study 2 consisted of a 2 (condition: advantage vs. disadvantage) by 3 (age group: young, middle-aged, older adults) between-participant design with willingness to engage in collective action as the dependent variable.

Adults of all ages were invited via links posted on various websites to take part in the web-based experiment. As an incentive, participants had the chance to win 20 gift vouchers worth 20 US\$ in a lottery. In Study 2,  $N = 231$  participants aged between 18 and 83 years took part ( $M = 40.65$ ,  $SD = 19.26$ ; 71% female). The sample consisted of  $n = 120$  younger (18–34 years;  $M = 24.63$ ,  $SD = 3.98$ ; 77% female),  $n = 66$  middle-aged (35–64 years;  $M = 48.95$ ,  $SD = 9.14$ ; 74% female), and  $n = 45$  older adults (65–83 years;  $M = 71.16$ ,  $SD = 4.29$ ; 51% female). Concerning level of education, 4% reported to have completed primary education, 24%

professional training, 28% high school, 8% university of applied science, and 33% university. Most of the young adults were students (64%) or working (33%). Fifty-one percent of young adults were single, 43% had a partner, and 8% were married. Half of middle-aged adults were married, 24% had a partner, 12% were single, and 14% were divorced. Middle-aged adults were mostly working (68%) and 14% were housekeeper. Older adults were mostly married (64%), 11% had a partner, 9% were single, 4% were widowed, and 11% were divorced. The majority of older adults was retired (82%).

### *Procedure*

After providing informed consent, participants were randomly assigned to one of the two experimental conditions. In the loss condition, adults were asked to list a disadvantage they perceive in being a member of their age group. By contrast, in the gain condition they were asked to list a group-related advantage. Subsequently, participants indicated their willingness to engage in collective action in order to change or preserve this disadvantage or advantage, respectively. Instructions for young, middle-aged, and older adults are provided in [Supplementary Appendix B](#). After the experiment, participants were thanked and fully debriefed.

Nearly all participants (96%) reported gains in the advantage and losses in the disadvantage condition. When asked to list group-related (dis)advantages, the following topics were most often reported (a) economic, political, and welfare (e.g., pension, social security, and health insurance), (b) personal finances, (c) education and work/employment, (d) pressure to perform and today's "affluent society," (e) mobility and freedom, (f) changes associated with old age (e.g., leisure), (g) reconciliation of family and work, (h) housing market, (i) loss of moral values, (j) environmental issues, and (k) discrimination.

### *Measures*

*Centrality of Age-Group Membership.*—We assessed the centrality of participants' age-group membership to their self-concept by using the [Luhtanen and Crocker's \(1992\)](#) four-item Importance to Identity subscale from the Collective Self-Esteem scale (e.g., "My age group is an important reflection of who I am"; "Being a member of my age group is unimportant to my sense of what kind of person I am," reverse scored; Cronbach's  $\alpha = 0.75$ ).

*Subjective well-being.*—We assessed subjective well-being with the six-item short version of the Multidimensional Mood State Questionnaire ([Steyer, Schwenkmezger, Notz, & Eid, 1994](#)) before and after the manipulation. Specifically, two parallel versions of the scale were used to assess the mood before (Cronbach's  $\alpha = 0.86$ ) and after the manipulation of thinking about a group-related advantage or disadvantage (Cronbach's  $\alpha = 0.92$ ).

**Willingness to engage in collective action.**—Willingness to engage in collective action was again assessed using seven items measuring the motivation to take action to when thinking of a group-related (dis)advantage (i.e., demonstration, boycott, strike, action group, telephone campaign, petition, information stand). A principal component analysis with orthogonal rotation (varimax) revealed two components with Eigenvalues greater than 1 that accounted for 58% of the variance. Moderate disruptive actions (i.e., demonstration, boycott, and strike) loaded on the first component (factor loadings > 0.71) and more normative and nondisruptive actions (i.e., action group, sign a petition, and organize an information stand) loaded on the second component (factor loadings > 0.64). One item (i.e., telephone campaign) had low loadings (<0.36) on both components and was excluded from the analyses. We computed a sum score across all actions on the basis of the remaining items (K-R 20 = 0.74) as well as for the disruptive (K-R 20 = 0.76) and nondisruptive (K-R 20 = 0.66) collective action items, separately.

## RESULTS

A 2×3 ANCOVA with condition (advantage vs. disadvantage) and age group (young, middle-aged, older adults) as independent variables as well as gender, as well as subjective well-being measured at  $T_1$  as covariates yielded a main effect on subjective well-being measured at  $T_2$ . Participants in the loss condition reported lower levels of subjective well-being ( $M = 2.19$ ,  $SD = 1.08$ ) than those in the gain condition ( $M = 4.53$ ,  $SD = 0.87$ ),  $F(2, 230) = 285$ ,  $p < .001$ ,  $\eta_p^2 = 0.56$ . Simple effect analyses yielded significant effects for all three age groups ( $p < .001$ ). However, no other main or interaction effects were found.

In order to replicate the findings of Study 1, we conducted a 2×3 ANCOVA that included willingness to take part in collective action as dependent variable and gender as a covariate. The analysis yielded a significant interaction effect of condition and age group,  $F(2, 226) = 3.76$ ,  $p = .03$ ,  $\eta_p^2 = 0.03$ . Planned pairwise comparisons for the three age groups showed that condition did not affect young adults' willingness to engage in collective action (see Table 2). In contrast, middle-aged and older adults were more willing to engage in collective action when they thought of a group-based disadvantage than of an advantage. This was true for

both, disruptive and nondisruptive forms of collective protest (see Table 2 for means, standard deviations and effect sizes). Moreover, younger adults reported to be more willing to engage in collective action relative to middle-aged and older adults when advantages were activated. Please note, that the pattern of results remained when subjective well-being was included as a covariate. In addition, when controlling for education, the interaction effect was marginally significant [ $F(2, 217) = 2.89$ ,  $p = .058$ ,  $\eta_p^2 = 0.03$ ] and single main effects for the three age groups showed the same pattern [nonsignificant for young adults and significant for middle-aged and older adults;  $p$ 's < .02].

Next, we examined the moderating role of the centrality of age identity in the relationship of thinking about a group-related advantage or disadvantage, respectively, and the self-reported willingness to engage in collective action. Regression analyses tested the interaction effect of age-identity centrality and condition (advantage vs. disadvantage) on the willingness to participate in collective action for the three age groups. We found a positive significant interaction effect of identity centrality and condition for younger ( $B = 0.84$ ,  $SE = 0.30$ ;  $\Delta R^2 = 0.08$ ,  $p < .01$ ) and older age groups ( $B = 0.84$ ,  $SE = 0.35$ ;  $\Delta R^2 = 0.28$ ,  $p = .02$ ) but a negative marginal effect for the middle-aged group ( $B = -0.52$ ,  $SE = 0.32$ ;  $\Delta R^2 = 0.04$ ,  $p = .10$ ). More specifically, simple slope analyses indicated significant similar effects for the younger ( $B = 0.70$ ,  $SE = 0.23$ ;  $p = .002$ ) and the older age group ( $B = 0.61$ ,  $SE = 0.26$ ;  $p = .02$ ). These effects indicate that those younger and older adults who perceived their age-group membership as highly central to their self-concept and thought about a group-based disadvantage were more willing to participate in collective action (see Figure 1). The opposite effect appeared for middle-aged adults such that middle-aged adults who perceived their age-group membership as less central to their self-concept and thought about a group-based advantage were less willing to participate in collective action ( $B = 0.57$ ,  $SE = 0.23$ ;  $p < .02$ ; see Figure 1).

## DISCUSSION

Replicating Study 1, the results of Study 2 demonstrated that middle-aged and older adults were more willing to take collective action when they thought about a disadvantage related to their age group. Contrary to our expectations,

Table 2. Means, Standard Deviations, and Effect Sizes for Young, Middle-Aged, and Older Adults' (Non) Disruptive Forms of Collective Action for the Respective Condition (Advantage vs. Disadvantage) in Study 2

	Advantage			Disadvantage			Effect size $d$		
	$M$ ( $SD$ )	$M_{ND}$ ( $SD$ )	$M_D$ ( $SD$ )	$M$ ( $SD$ )	$M_{ND}$ ( $SD$ )	$M_D$ ( $SD$ )	$d$	$d_{ND}$	$d_D$
Young	2.92 (1.91)	1.90 (1.07)	1.02 (1.20)	2.97 (1.98)	1.83 (1.14)	1.13 (1.21)	0.03	0.06	0.09
Middle-Aged	1.83 (1.74)	1.33 (1.31)	0.50 (0.78)	2.83 (2.01)	1.85 (1.15)	0.98 (1.15)	0.53*	0.42*	0.49*
Older	1.57 (1.36)	1.43 (1.21)	0.14 (0.36)	2.71 (1.41)	2.10 (0.83)	0.62 (0.87)	0.82**	0.65*	0.72*

Note. D = disruptive; ND = nondisruptive.

\* $p < .05$ . \*\* $p < .01$ .

young adults were equally willing to engage in collective action when thinking about a group-based advantage or disadvantage. Thinking about a group-based disadvantage led to a significant decrease of subjective well-being in all three age groups. Confirming Hypothesis 3, the centrality of age-group identity moderated this effect. Younger and older adults who perceived their age-group identity as a central part of their self-concept were more willing to engage in collective action when they thought about a group-related disadvantage. Thus, when the resources of an important ingroup were threatened, younger as well as older adults were motivated to change the disadvantaged situation of their age group by means of collective action. For middle-aged adults, thinking about a group-related advantage led to a decrease in the willingness to engage in collective action when the self-centrality of their age-group identity was low.

Research suggests that age-group membership is associated with differences in power and status. Changes in social status across adulthood are best described as an inverted U-shaped curve. Midlife is typically associated with high-status roles, young and older adulthood with lower-status roles (e.g., Eaton, Visser, Krosnick, & Anand, 2009; Miller, Gurin, Gurin, & Malanchuk, 1981; Zebrowitz & Montepare, 2000). Importantly, members of groups with a relatively low status appear to be more likely to be aware of being members of this group (Gurin et al., 1980). Therefore, the motivation to act collectively among low status age-group members

such as younger and older adults might be triggered by their increased accessibility of their age-group identity when they are confronted with group-related disadvantage.

### GENERAL DISCUSSION

The results of two experiments demonstrated that people's willingness to protest varies systematically with age. Generally, older adults seem to be less willing to participate in collective action than younger or middle-aged adults. However, if older adults are confronted with losses, their willingness to engage in collective action increased. In other words, with increasing age, adults are more motivated to participate in collective action in order to protect their assets than to attain more gains. In both experiments, middle-aged and older adults reported a higher willingness to engage in collective action as a response to group-related disadvantage or loss. Conversely, they reported a lower willingness as a response to group-related advantage or gain. This set of findings supported our hypotheses. In contrast, different to expectations younger adults reported to be willing to engage in collective action regardless of whether they specified a gain or advantage for their group or a loss or disadvantage. Confirming predictions, the centrality of people's age identity appears to moderate the willingness to engage in collective action: Young and older adults whose age identity was central to their self-concept reported higher levels of willingness to engage in collective

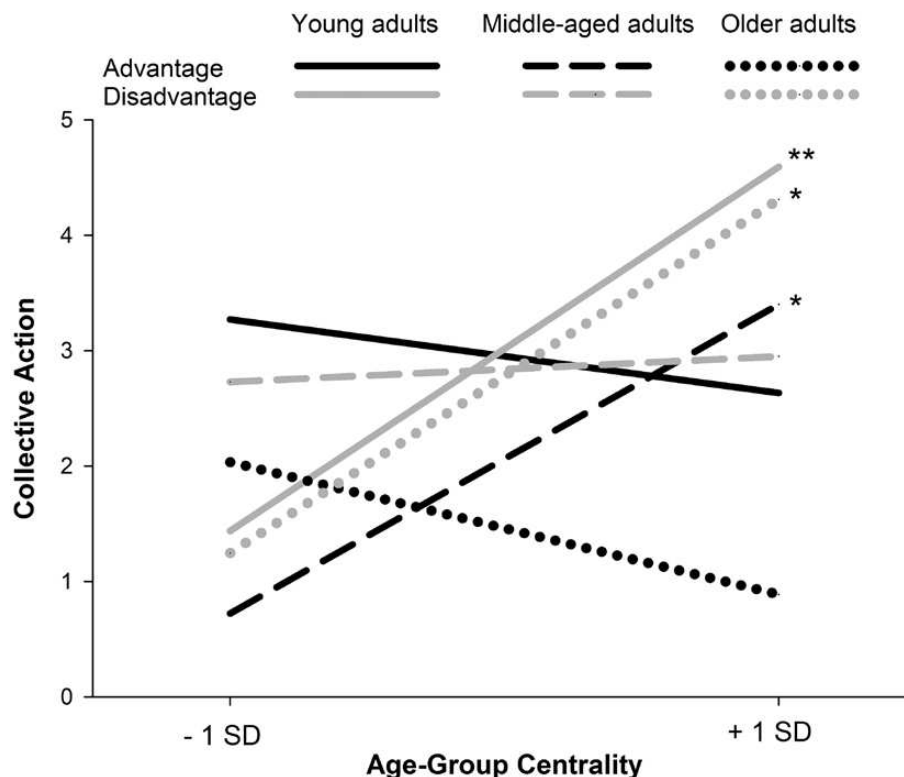


Figure 1. Study 2: Interaction effect of gain versus loss perception (group-related advantage vs. disadvantage) and age-group centrality ( $\pm 1$  SD) on young, middle-aged, and older adults' willingness to engage in collective action (\* $p < .05$ ; \*\* $p < .01$ ).



action when they thought about a group-related disadvantage. Middle-aged adults' willingness to engage in collective action was reduced when they thought about an advantage and when their age identity was less central to themselves.

In general, growing older is associated with the awareness of life's finitude (e.g., [Lang & Carstensen, 2002](#)). The perception of future time influences peoples' motivation ([Freund, Nikitin, & Ritter, 2009](#)). Research suggests that a limited future time perspective is related to reduced levels of agency and goal pursuit in the future ([Karniol & Ross, 1996](#); [Newby-Clark & Ross, 2003](#)). However, our findings indicate that becoming older does not imply becoming generally more complacent and less politically engaged. Instead, the difference between the age groups for the willingness to participate in collective action lays in age-related differences the motivational orientation toward maintenance and the avoidance of loss ([Ebner et al., 2006](#); [Freund, 2006](#)).

The two experiments highlight under which conditions members of different age groups participate in collective protest to gain or preserve a specific disadvantage of their age group. Our findings point to the central role of younger people in initiating social change that concerns mainly the attainment of gains. The results suggest that middle-aged and older people are willing to engage in collective action when they think about the prospect of loss or disadvantage. It seems likely, that these age groups might act collectively in order to preserve the status quo and protect their resources. For example, having a rather limited future time perspective may reduce the motivation to invest in novel future projects. In contrast, younger adults are motivated to engage in collective action when their interests are at stake, regardless of whether this involves a potential loss/disadvantage or prospective gains/advantage. Thus, it appears that there are different reasons for younger and older adults to engage in social change. Specifically, for younger adults both, prospective gains and losses appear to be a central motivating force, whereas for middle-aged and older adults the protection and preservation of their assets seems to be more central.

In a study on health-related role models, [Lockwood and colleagues \(2005\)](#) showed that both, younger and older adults showed a stronger focus on health promotion than on health prevention. Older adults, however, showed a stronger focus on preventing negative health outcomes than younger adults, and they were more strongly motivated by negative role models. In line with this, regulatory fit theory ([Higgins, 2000](#)) argues that goal engagement increases when the goal pursuit strategies and goal-relevant information fits people's underlying motivational orientation. Note, that our results are only partly in line with regulatory fit as they show that young adults in the gain/advantage condition display a higher willingness to engage in collective action than middle-aged and older adults. However, compared with the loss/disadvantage condition we did not find

any significant differences for younger adults. By contrast, middle-aged and older adults were more willing to engage in collective action when the situation was framed as loss or disadvantage.

In the current studies, participants were confronted with hypothetical scenarios that involved gains and losses and then asked if they would be willing to participate in collective action for or against the described scenario. Future research is needed to test whether people of different ages are more motivated by actual collective movements that frame their goals as attaining gains or on preventing loss. [Gurin and colleagues \(1980\)](#) found that older adults were aware of their age-group membership but displayed a relatively low potential for political mobilizing. Specifically, they found that older adults' perception to be able to bring about social change, that is, that they could increase their influence as a group in the future, was rather low. Similarly, [Miller, Gurin, and Gurin \(1980\)](#) found that older adults who identified with the category of "older people" were less politically involved than older adults who did not identify with their age group. The authors argue that, because age stereotypes often refer to older adults' incapability and powerlessness, self-categorization in terms of old age minimizes the likelihood that older adults participate in collective action. Thus, age stereotypes often relating to low levels of agency undermine older adults' shared sense of perceived influence and control as a group (collective agency; see [Bandura, 2000](#)). Future research needs to examine younger, middle-aged, and older adults' agency beliefs of being capable to cause social change. Specifically, self-efficacy and perceptions of control could be examined on an individual and collective level of self-definition. Moreover, research shows that as people grow older they tend to distance themselves from their age group in order to protect themselves from negative age stereotypes ([Weiss & Freund, 2012](#); [Weiss & Lang, 2012](#)). As a consequence, age-group dissociation may obstruct older adults' potential to act collectively and to enhance their status as a social group.

It is important to consider intergenerational dynamics when studying the life-span psychology of collective action. Younger and older generations are linked to each other and may not always favor their own over other age groups. It is likely that intergenerational interdependence influences people's willingness to engage in collective protest. For example, under certain circumstances, such as when thinking about their children and grandchildren, older adults may be more willing to share or give up resources that benefit younger people ([North & Fiske, 2012](#)).

### Limitations

As is true with all cross-sectional studies, the current experiments cannot fully disentangle age and cohort effects. The effects of perceived gains/losses for younger, middle-aged, and older adults may be confounded with

cohort effects. The cohort of older adults still experienced the consequences of World War II on a general shortage of resources and might hence be more motivated to preserve resources than later-born cohorts. By contrast, later-born cohorts may have been socialized to “stand up for their rights” due to major political and societal changes. Note, however, that middle-aged adults showed the same effects of being more driven by potential losses than by gains when thinking about taking collective action. Although longitudinal studies with a more extended time interval could solve these issues, longitudinal studies spanning 60 years to cover the age span between 20 and 80 years of the present samples are not easily feasible. In the present studies, we did not assess young, middle-aged, and older adults’ motivational orientations directly. Thus, it is possible that our findings might be driven by other factors, such as people’s orientation toward positive and negative information. Moreover, participants in our experiments reported to engage in a relatively small number of collective action. Finally, we only assessed participants willingness to engage in certain forms of collective action but not the frequency or intensity of actual participation. At this point, it is not clear whether people might differ in the extent to which they engage in a specific activity. For example, people might participate frequently and intensively in only one type of action (e.g., demonstration) and others might participate in various activities (e.g., telephone campaign, action group) only occasionally. Thus, future research needs to include measures of collective action that capture the frequency and intensity of specific collective action. A further limitation to the current studies is that access to the Internet is currently not as common among older compared with younger adults and might indicate selectivity of our older adult sample. Thus, in order to establish the generalizability of our findings, future studies need to include larger and more diverse samples of older adults.

Finally, the current studies used self-report measures for assessing the willingness to engage in collective action. Although behavioral intentions have been shown to be predictive of actual behavior (Ajzen & Fishbein, 1977), there is a well-documented gap between attitudes and behavior (e.g., Eagly & Chaiken, 1993). To this point it is not clear to what extent self-reported willingness to engage in collective action leads to actual participation in collective protest.

### Conclusion

The current studies make an important contribution to the understanding of the motivational factors impacting the willingness to participate in collective action. Age differences in the orientation toward gains and losses account for people’s willingness to engage in collective action. Whereas younger adults seem to be equally driven by prospective gains and losses, middle-aged and older adults are more willing to engage in collective action when their assets are

threatened or when they think about the disadvantages their respective age group experiences.

### SUPPLEMENTARY MATERIAL

Supplementary material can be found at: <http://psychsocgerontology.oxfordjournals.org/>

### ACKNOWLEDGMENTS

We wish to thank Thekla Schulze and Lorena Leuchtmann for their help with data collection and data entry.

### FUNDING

The research for this article was supported by a grant of the Biäsch Foundation (2010/11; PI: D. Weiss) and a grant of the Swiss National Science Foundation (100014-138045; PI: A. M. Freund).

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### REFERENCES

- Ajzen, L., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84, 888–918. doi:10.1037/0033-2909.84.5.888
- Ashmore, R. D., Deaux, K., & Mclaughlin-Volpe, T. (2004). An organizing framework for collective identity: Articulation and significance of multidimensionality. *Psychological Bulletin*, 130, 80–114. doi:10.1037/0033-2909.130.1.80
- Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology*, 23, 611–626. doi:10.1037/0012-1649.23.5.611
- Bandura, A. (2000). Exercise of human agency through collective agency. *Current Directions in Psychological Science*, 9, 75–78. doi:10.1111/1467-8721.00064
- Brewer, M. B. (2001). Ingroup identification and intergroup conflict: When does ingroup love become outgroup hate? In R. D. Ashmore, L. Jussim, & D. Wilder (Eds.), *Social identity, intergroup conflict, and conflict reduction* (Rutgers Series on Self and Social Identity, Vol. 3, pp. 17–41). New York: Oxford University Press.
- Cameron, J. E., & Nickerson, S. L. (2009). Predictors of protest among anti-globalization demonstrators. *Journal of Applied Social Psychology*, 39, 734–761. doi:10.1111/j.1559-1816.2009.00458.x
- Depping, M., & Freund, A. M. (2013). When choice matters: Task-dependent memory effects in older adulthood. *Psychology and Aging*, 28, 923–936. doi:10.1037/a0034520
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt Brace Jovanovich College Publishers.
- Eaton, A. A., Visser, P. S., Krosnick, J. A., & Anand, S. (2009). Social power and attitude strength over the life cycle. *Personality and Social Psychology Bulletin*, 12, 1646–1660. doi:10.1177/0146167209349114
- Ebner, N. C., Freund, A. M., & Baltes, P. B. (2006). Developmental changes in personal goal orientation from young to late adulthood: From striving for gains to maintenance and prevention of losses. *Psychology and Aging*, 21, 664–678. doi:10.1037/0882-7974.21.4.664
- Ellemers, N. (2001). Social identity and relative deprivation. In I. Walker, & H. Smith (Eds.), *Relative deprivation: Specification, development, and integration* (pp. 239–264). Cambridge University Press.
- Ellemers, N., Scheepers, D., & Popa, A. M. (2010). Something to gain or something to lose? Affirmative action and regulatory focus emotions. *Group Processes & Intergroup Relations*, 13, 201–213. doi:10.1177/1368430209343296

- Freund, A. M. (2006). Age-differential motivational consequences of optimization versus compensation focus in younger and older adults. *Psychology and Aging, 21*, 240–252. doi:10.1037/0882-7974.21.2.240
- Freund, A. M., & Ebner, N. C. (2005). The aging self: Shifting from promoting gains to balancing losses. In W. Greve, K. Rothermund, & D. Wentura (Eds.), *The adaptive self: Personal continuity and intentional self-development* (pp. 185–202). Ashland, OH: Hogrefe & Huber.
- Freund, A. M., Nikitin J., Ritter J. O. (2009). Psychological consequences of longevity: The increasing importance of self-regulation in old age. *Human Development, 52*, 21–37. doi:10.1159/000189213
- Glenn, N. D., & Grimes, M. (1968). Aging, voting and political interest. *American Sociological Review, 33*, 563–575.
- Grofman, B. N., & Muller, E. N. (1973). The strange case of relative gratification and potential for political violence: The V-curve hypothesis. *American Political Science Review, 57*, 514–539. doi:http://dx.doi.org/10.2307/1958781
- Guimond, S., & Dubé-Simard, L. (1983). Relative deprivation theory and the Quebec nationalist movement: The cognition-emotion distinction and the personal-group deprivation issue. *Journal of Personality and Social Psychology, 44*, 526–535. doi:10.1037/0022-3514.44.3.526
- Grant, P. R., & Brown, R. (1995). From ethnocentrism to collective protest: Responses to relative deprivation and threats to social identity. *Social Psychology Quarterly, 58*, 195–211. doi:http://dx.doi.org/10.2307/2787042
- Gurin, P., Miller, A. H., & Gurin, G. (1980). Stratum identification and consciousness. *Social Psychology Quarterly, 43*, 30–47. doi:http://dx.doi.org/10.2307/3033746
- Heckhausen, J. (1999). *Developmental regulation in adulthood: Age-normative and sociostructural constraints as adaptive challenges*. Cambridge, UK: Cambridge University Press.
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist, 55*, 1217–1230.
- Jost, J. T., Chaikalis-Petritis, V., Abrams, D., Sidanius, J., van der Toorn, J., & Bratt, C. (2012). Why men (and women) do and don't rebel: Effects of system justification on willingness to protest. *Personality and Social Psychology Bulletin, 38*, 197–208. doi:10.1177/0146167211422544
- Karniol, R., & Ross, M. (1996). The motivational impact of temporal focus: Thinking about the future and the past. *Annual Reviews of Psychology, 47*, 593–620. doi:10.1146/annurev.psych.47.1.593
- Kelly, C. (1993). Group identification, intergroup perceptions, and collective action. In W. Stroebe, & M. Hewstone (Eds.), *European review of social psychology*. Chichester, UK: Wiley.
- Lang, F. R., & Carstensen, L. L. (2002). Time counts: Future time perspective, goals, and social relationships. *Psychology and Aging, 17*, 125–139. doi:10.1037/0882-7974.17.1.125
- Luhtanen, R. & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin, 18*, 302–318. doi:10.1177/0146167292183006
- Lockwood, P., Chasteen, A. L., & Wong, C. (2005). Age and regulatory focus determine preferences for health-related role models. *Psychology and Aging, 20*, 376–389.
- Miller, A. H., Gurin, P., Gurin, G., & Malanchuk, O. (1981). Group consciousness and political participation. *American Journal of Political Science, 25*, 494–511. doi:http://dx.doi.org/10.2307/2110816
- Miller, A. R., Gurin, P., & Gurin, G. (1980). Age consciousness and political mobilization of older Americans. *The Gerontologist, 40*, 691–700. doi:10.1093/geront/20.6.691
- Mustafic, M., & Freund, A. M. (2012). Multidimensionality in developmental conceptions across adulthood. *GeroPsych, 25*, 57–72. doi:10.1024/1662-9647/a000055
- Newby-Clark, I. & Ross, M. (2003). Conceiving the past and future. *Personality and Social Psychology Bulletin, 29*, 807–818. doi:10.1177/0146167203029007001
- North, M. S., & Fiske, S. T. (2012). An inconvenienced youth? Ageism and its potential intergenerational roots. *Psychological Bulletin, 138*, 982–997. doi:10.1037/a0027843
- Pettigrew, T. F. (2002). Summing up: Relative deprivation as a key social psychological concept. In I. Walker, & H. J. Smiths (Eds.), *Relative deprivation: Specification, development and integration* (pp. 351–373). Cambridge: Cambridge University Press.
- Simon, B. (2004). *Identity in modern society: A social psychological perspective*. Oxford: Blackwell Publishers Ltd.
- Simon, B., & Klandermans, B. (2001). Politicized collective identity: A social psychological analysis. *American Psychologist, 56*, 319–331. doi:10.1037/0003-066X.56.4.319
- Simon, B., Loewy, M., Sturmer, S., Weber, U., Freytag, P., Habig, C., ... Spahlinger, P. (1998). Collective identification and social movement participation. *Journal of Personality and Social Psychology, 74*, 646–658.
- Spears, R., Doosje, B., & Ellemers, N. (1997). Self-stereotyping in the face of threats to group status and distinctiveness: The role of group identification. *Personality and Social Psychology Bulletin, 23*, 538–553. doi:10.1037/0022-3514.74.3.646
- Staudinger, U. M., Marsiske, M., & Baltes, P. B. (1993). Resilience and levels of reserve capacity in later adulthood: Perspectives from life-span theory. *Development and Psychopathology, 5*, 541–566. doi:http://dx.doi.org/10.1017/S0954579400006155
- Steyer, R., Schwenkmezger, P., Notz, P., & Eid, M. (1994). Testtheoretische Analysen des Mehrdimensionalen Befindlichkeitsfragebogens (MDBF) [Theoretical analysis of a multidimensional mood question-naire (MDBF)]. *Diagnostica, 40*, 320–328.
- Tajfel, H. (1978). Social categorization, social identity and social comparison. In H. Tajfel (Ed.), *Differentiation between social groups: Studies in the social psychology of intergroup relations* (pp. 61–76). London: Academic Press.
- Tajfel, H. (1981). *Human groups and social categories*. Cambridge, UK: Cambridge University Press.
- Tausch, N., Becker, J., Spears, R., Christ, O., Saab, R., Singh, P., & Siddiqui, R. N. (2011). Explaining radical group behavior: Developing emotion and efficacy routes to normative and non- normative collective action. *Journal of Personality and Social Psychology, 101*, 129–148. doi:10.1037/a0022728
- Van Zomeren, M., Postmes, T., & Spears, R. (2008). Toward an integrative social identity model of collective action: A quantitative research synthesis of three socio-psychological perspectives. *Psychological Bulletin, 134*, 504–535. doi:10.1037/0033-2909.134.4.504
- Weiss, D., & Freund, A. M. (2012). Still young at heart: Negative age-related information motivates distancing from same-aged people. *Psychology and Aging, 27*, 173–180. doi:10.1037/a0024819
- Weiss, D., & Lang, F. R. (2012). "They" are old but "I" feel younger: Age-group dissociation as a self-protective strategy in old age. *Psychology and Aging, 27*, 153–163. doi:10.1037/a0024887
- Walker, I. & Pettigrew, T. F. (1984) Relative deprivation theory: An overview and conceptual critique. *British Journal of Social Psychology, 23*, 301–310. doi:10.1111/j.2044-8309.1984.tb00645.x
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology, 58*, 994–1003. doi:10.1037/0022-3514.58.6.994
- Zebrowitz, L. A., & Montepare, J. M. (2000). Too young, too old: Stigmatizing adolescents and the elderly. In T. Heatherton, R. Kleck, J. G. Hull, & M. Hebl (Eds.), *Stigma* (pp. 334–373). NY: Guilford Publications.